

CLAIMS

1. A media sheet, comprising:
a substrate; and
5 a porous ink-receiving layer deposited on the substrate, said porous ink-receiving layer comprising inorganic metal or semi-metal oxide particulates bound by a polymeric binder, said porous ink-receiving layer further including an effective amount of a sulfur-containing compound that interacts with ozone upon exposure thereto.
- 10 2. A media sheet as in claim 1, wherein the substrate is photobase.
3. A media sheet as in claim 1, wherein the porous ink-receiving layer further comprises a mordant component configured for fixing a predetermined
15 class of colorant.
4. A media sheet as in claim 1, wherein the inorganic metal or semi-metal oxide is silica.
- 20 5. A media sheet as in claim 1, wherein the inorganic or semi-metal oxide is alumina.
6. A media sheet as in claim 1, wherein the polymeric binder is selected from the group consisting of polyvinyl alcohol, water-soluble copolymers of
25 polyvinyl alcohol, polyvinyl acetate, polyvinyl pyrrolidone, oxidized starches, etherified starches, carboxymethyl cellulose, hydroxyethyl cellulose, polyacrylamide, polyacrylamide derivatives, polyacrylamide copolymers, casein, gelatin, soybean protein, silyl-modified polyvinyl alcohol, maleic anhydride resin, styrene-butadiene copolymer, copolymers of acrylic and methacrylic acids,
30 ethylene-vinyl acetate copolymers, carboxyl-modified latexes, amino-modified latexes, amido-modified latexes, sulfo-modified latexes, melamine resin, urea resin, polymethyl methacrylate, polyurethane resin, polyester resin, amide resin,

vinyl chloride-vinyl acetate copolymer, polyvinyl butyral, alkyl resins, and combinations thereof.

7. A media sheet as in claim 1, wherein the sulfur-containing compound
5 is admixed within the porous ink-receiving layer.

8. A media sheet as in claim 1, wherein at least a portion of the sulfur-
containing compound is chemically attached to at least one of the inorganic
metal or semi-metal oxide particulates.

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9. A media sheet as in claim 1, wherein the sulfur-containing compound
is selected from the group consisting of a thioether and a thiol.

10. A media sheet as in claim 9, wherein the sulfur-containing compound
15 is a thiodiethanol.

11. A method of preparing a media sheet, comprising:
applying a porous ink-receiving layer to a media substrate, said ink-
receiving layer including inorganic metal or semi-metal oxide particulates,
20 polymeric binder, and an effective amount of a sulfur-containing compound that
interacts with ozone upon exposure thereto; and
drying the ink-receiving layer.

12. A method as in claim 11, wherein the inorganic metal or semi-metal
25 oxide particulates, the polymeric binder, and the sulfur-containing compound are
present in a common coating composition, and the common coating
composition is coated on the media substrate in the applying step.

13. A method as in claim 12, wherein the inorganic metal or semi-metal
30 oxide particulates, the polymeric binder, and the sulfur-containing compound are
admixed together in the common coating composition.

14. A method as in claim 12, wherein at least a portion of the sulfur-containing compound is chemically attached to at least one of the inorganic metal or semi-metal oxide particulates.

5 15. A method as in claim 11, wherein the applying step includes two coating steps, said two coating steps comprising:
 coating the media substrate with a first coating composition including the inorganic metal or semi-metal oxide particulates and the polymeric binder, and
 overcoating the first coating composition with a second coating
10 composition including the sulfur-containing compound.

16. A method as in claim 11, wherein the porous ink-receiving layer further comprises a mordant component configured for fixing a predetermined class of colorant.

15 17. A method as in claim 11, wherein the inorganic metal or semi-metal oxide is silica or alumina.

18. A method as in claim 11, wherein the polymeric binder is selected
20 from the group consisting of polyvinyl alcohol, water-soluble copolymers of polyvinyl alcohol, polyvinyl acetate, polyvinyl pyrrolidone, oxidized starches, etherified starches, carboxymethyl cellulose, hydroxyethyl cellulose, polyacrylamide, polyacrylamide derivatives, polyacrylamide copolymers, casein, gelatin, soybean protein, silyl-modified polyvinyl alcohol, maleic anhydride resin,
25 styrene-butadiene copolymer, copolymers of acrylic and methacrylic acids, ethylene-vinyl acetate copolymers, carboxyl-modified latexes, amino-modified latexes, amido-modified latexes, sulfo-modified latexes, melamine resin, urea resin, polymethyl methacrylate, polyurethane resin, polyester resin, amide resin, vinyl chloride-vinyl acetate copolymer, polyvinyl butyral, alkyl resins, and
30 combinations thereof.

19. A method as in claim 11, wherein the sulfur-containing compound is selected from the group consisting of a thioether and a thiol.

20. A method as in claim 19, wherein the sulfur-containing compound is
5 a thiodiethanol.

21. An ink-jet print, comprising:
a coated media substrate, including a substrate and a porous ink-receiving layer deposited on the substrate, said porous ink-receiving layer
10 comprising inorganic metal or semi-metal oxide particulates bound by a polymeric binder, said porous ink-receiving layer further including a sulfur-containing compound; and
an ink-jet ink applied to at least a portion of the coated media substrate to form an ink-jet image that is resistant to ozone exposure.

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22. An ink-jet print as in claim 21, wherein the substrate is photobase.

23. An ink-jet print as in claim 21, wherein the porous ink-receiving layer further comprises a mordant component, said mordant component having
20 interacted with a colorant present in the ink-jet ink.

24. An ink-jet print as in claim 21, wherein the inorganic metal or semi-metal oxide is silica.

25. An ink-jet print as in claim 21, wherein the inorganic or semi-metal
25 oxide is alumina.

26. An ink-jet print as in claim 21, wherein the polymeric binder is selected from the group consisting of polyvinyl alcohol, water-soluble
30 copolymers of polyvinyl alcohol, polyvinyl acetate, polyvinyl pyrrolidone, oxidized starches, etherified starches, carboxymethyl cellulose, hydroxyethyl cellulose, polyacrylamide, polyacrylamide derivatives, polyacrylamide

copolymers, casein, gelatin, soybean protein, silyl-modified polyvinyl alcohol, maleic anhydride resin, styrene-butadiene copolymer, copolymers of acrylic and methacrylic acids, ethylene-vinyl acetate copolymers, carboxyl-modified latexes, amino-modified latexes, amido-modified latexes, sulfo-modified latexes, 5 melamine resin, urea resin, polymethyl methacrylate, polyurethane resin, polyester resin, amide resin, vinyl chloride-vinyl acetate copolymer, polyvinyl butyral, alkyl resins, and combinations thereof.

27. An ink-jet print as in claim 21, wherein the sulfur-containing 10 compound is admixed within the porous ink-receiving layer.

28. An ink-jet print as in claim 21, wherein at least a portion of the sulfur-containing compound is chemically attached to at least one of the inorganic metal or semi-metal oxide particulates. 15

29. An ink-jet print as in claim 21, wherein the sulfur-containing compound is selected from the group consisting of a thioether and a thiol.

30. An ink-jet print as in claim 29, wherein the sulfur-containing 20 compound is a thiodiethanol.